

Permit to Modify



R13- 2891

This permit is issued in accordance with the West Virginia Air Pollution Control Act (West Virginia Code §§22-5-1 et seq.) and 45 C.S.R. 13 – Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Temporary Permits, General Permits and Procedures for Evaluation. The permittee identified at the above-referenced facility is authorized to construct the stationary sources of air pollutants identified herein in accordance with all terms and conditions of this permit.

Issued to:

Enerven Compression Services, LLC
Jarvisville Compressor Station
033-00191

John A. Benedict
Director

Issued: DRAFT • Effective: DRAFT

This permit will supercede and replace General Permit Registration G35-A041

Facility Location: Jarvisville, Harrison County, West Virginia

Mailing Address: 8150 N. Central Expressway #1100, Dallas, TX 75206

Facility Description: Natural Gas Compressor Station

NAICS Codes: 486210

UTM Coordinates: 545.997 km Easting • 4343.608 km Northing • Zone 17

Permit Type: Modification

Description of Change: Modification of a natural gas compressor station consisting of the addition of four (4) natural gas compressor engines and one (1) TEG dehydration unit.

Any person whose interest may be affected, including, but not necessarily limited to, the applicant and any person who participated in the public comment process, by a permit issued, modified or denied by the Secretary may appeal such action of the Secretary to the Air Quality Board pursuant to article one [§§22B-1-1 et seq.], Chapter 22B of the Code of West Virginia. West Virginia Code §§22-5-14.

The source is not subject to 45CSR30.

Unless otherwise stated WVDEP DAQ did not determine whether the permittee is subject to an area source air toxics standard requiring Generally Achievable Control Technology (GACT) promulgated after January 1, 2007 pursuant to 40 CFR 63, including the area source air toxics provisions of 40 CFR 63, Subpart HH and 40 CFR 63, Subpart ZZZZ.

Table of Contents

1.0.	Emission Units.....	4
1.1.	Control Devices	5
2.0.	General Conditions	6
2.1.	Definitions	6
2.2.	Acronyms	6
2.3.	Authority.....	7
2.4.	Term and Renewal.....	7
2.5.	Duty to Comply	7
2.6.	Duty to Provide Information.....	7
2.7.	Duty to Supplement and Correct Information	8
2.8.	Administrative Permit Update	8
2.9.	Permit Modification.....	8
2.10.	Major Permit Modification.....	8
2.11.	Inspection and Entry	8
2.12.	Emergency	8
2.13.	Need to Halt or Reduce Activity Not a Defense	9
2.14.	Suspension of Activities	9
2.15.	Property Rights	9
2.16.	Severability	10
2.17.	Transferability	10
2.18.	Notification Requirements.....	10
2.19.	Credible Evidence.....	10
3.0.	Facility-Wide Requirements	11
3.1.	Limitations and Standards	11
3.2.	Monitoring Requirements	11
3.3.	Testing Requirements	11
3.4.	Recordkeeping Requirements	12
3.5.	Reporting Requirements	13
4.0.	Source-Specific Requirements.....	15
4.1.	Limitations and Standards	15
5.0.	Source-Specific Requirements (Engines, CE-1 - CE-9).....	16
5.1.	Limitations and Standards	16
5.2.	Monitoring Requirements	17
5.3.	Testing Requirements.....	17
5.4.	Recordkeeping Requirements.....	17
5.5.	Reporting Requirements.....	18
6.0.	Source-Specific Requirements (Natural Gas Dehydration Units Not Subject to MACT Standards and being controlled by Recycling the Dehydration Unit Back to Flame Zone of Reboiler).....	18
6.1.	Limitations and Standards	18
6.2.	Monitoring Requirements	20
6.3.	Recordkeeping Requirements.....	20
7.0.	Permit Exemption (Less than 1 ton/year Benzene Exemption).....	21
	CERTIFICATION OF DATA ACCURACY	22

1.0. Emission Units

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
CE-1	1E	Caterpillar G3516LE Compressor Engine	2011	1,340 bhp/ 1,400 rpm	1C/3C
CE-2	2E	Caterpillar G3516LE Compressor Engine	2011	1,340 bhp/ 1,400 rpm	1C/3C
CE-3	3E	Caterpillar G3516LE Compressor Engine	2011	1,340 bhp/ 1,400 rpm	1C/3C
CE-4	4E	Caterpillar G3516LE Compressor Engine	2011	1,340 bhp/ 1,400 rpm	1C/3C
CE-5	5E	Caterpillar G3516LE Compressor Engine	2011	1,340 bhp/ 1,400 rpm	1C/3C
CE-6	6E	Caterpillar G3516LE Compressor Engine	2011	1,340 bhp/ 1,400 rpm	1C/3C
CE-7	7E	Caterpillar G3516LE Compressor Engine	2011	1,340 bhp/ 1,400 rpm	1C/3C
CE-8	8E	Caterpillar G3516LE Compressor Engine	2011	1,340 bhp/ 1,400 rpm	1C/3C
CE-9	9E	Caterpillar G3516LE Compressor Engine	2011	1,340 bhp/ 1,400 rpm	1C/3C
RBV-1	10E	Valerus Glycol Dehydration Unit Reboiler	2011	0.5 MMBtu/hr	None
RSV-1	11E	Valerus Glycol Dehydration Unit Still Vent	2011	25 mmscfd	2C
RBV-2	12E	Valerus Glycol Dehydration Unit Reboiler	2011	0.5 MMBtu/hr	None
RSV-2	13E	Valerus Glycol Dehydration Unit Still Vent	2011	25 mmscfd	2C
RBV-3	14E	Valerus Glycol Dehydration Unit Reboiler	2011	1.5 MMBtu/hr	None
RSV-3	15E	Valerus Glycol Dehydration Unit Still Vent	2011	52 mmscfd	2C
T01	T01	Produced Water Storage Tank	2011	8,400 gallons	None
T02	T02	Condensate Storage Tank	2011	8,400 gallons	None
T03	T03	Waste Oil Storage Tank	2011	1,000 gallons	None
T04	T04	TEG Storage Tank	2011	1,000 gallons	None
T05	T05	Lube Oil Storage Tank	2011	1,000 gallons	None
T06	T06	Antifreeze/TEG Storage Tank	2011	1,000 gallons	None
T07	T07	Dehy Drains Storage Tank	2011	285 gallons	None

1.1 Control Devices

Control Device ID	Control Device	Emission Unit	Pollutant	Control Efficiency
1C	Selective Catalytic Reduction (SCR)	CE-1 – CE-9	Carbon Monoxide	98 %
			Volatile Organic Compounds	87 %
			Formaldehyde	98 %
2C	BTEX Condenser	RSV-1, RSV-2, RSV-3	Volatile Organic Compounds	98 %
			Hazardous Air Pollutants	98 %
3C	Fuel Borne Catalyst	CE-1 – CE-9	Nitrogen Oxides	0.5 g/hp-hr

2.0. General Conditions

2.1. Definitions

- 2.1.1. All references to the “West Virginia Air Pollution Control Act” or the “Air Pollution Control Act” mean those provisions contained in W.Va. Code §§ 22-5-1 to 22-5-18.
- 2.1.2. The “Clean Air Act” means those provisions contained in 42 U.S.C. §§ 7401 to 7671q, and regulations promulgated thereunder.
- 2.1.3. “Secretary” means the Secretary of the Department of Environmental Protection or such other person to whom the Secretary has delegated authority or duties pursuant to W.Va. Code §§ 22-1-6 or 22-1-8 (45CSR§30-2.12.). The Director of the Division of Air Quality is the Secretary’s designated representative for the purposes of this permit.

2.2. Acronyms

CAAA	Clean Air Act Amendments	NO_x	Nitrogen Oxides
CBI	Confidential Business Information	NSPS	New Source Performance Standards
CEM	Continuous Emission Monitor	PM	Particulate Matter
CES	Certified Emission Statement	PM_{2.5}	Particulate Matter less than 2.5 µm in diameter
C.F.R. or CFR	Code of Federal Regulations	PM₁₀	Particulate Matter less than 10µm in diameter
CO	Carbon Monoxide	Ppb	Pounds per Batch
C.S.R. or CSR	Codes of State Rules	Pph	Pounds per Hour
DAQ	Division of Air Quality	Ppm	Parts per Million
DEP	Department of Environmental Protection	Ppm_v or ppmv	Parts per Million by Volume
dscm	Dry Standard Cubic Meter	PSD	Prevention of Significant Deterioration
FOIA	Freedom of Information Act	Psi	Pounds per Square Inch
HAP	Hazardous Air Pollutant	SIC	Standard Industrial Classification
HON	Hazardous Organic NESHAP	SIP	State Implementation Plan
HP	Horsepower	SO₂	Sulfur Dioxide
lbs/hr	Pounds per Hour	TAP	Toxic Air Pollutant
LDAR	Leak Detection and Repair	TPY	Tons per Year
M	Thousand	TRS	Total Reduced Sulfur
MACT	Maximum Achievable Control Technology	TSP	Total Suspended Particulate
MDHI	Maximum Design Heat Input	USEPA	United States Environmental Protection Agency
MM	Million	UTM	Universal Transverse Mercator
MMBtu/hr or mmbtu/hr	Million British Thermal Units per Hour	VEE	Visual Emissions Evaluation
MMCF/hr or mmcf/hr	Million Cubic Feet per Hour	VOC	Volatile Organic Compounds
NA	Not Applicable	VOL	Volatile Organic Liquids
NAAQS	National Ambient Air Quality Standards		
NESHAPS	National Emissions Standards for Hazardous Air Pollutants		

2.3. Authority

This permit is issued in accordance with West Virginia air pollution control law W.Va. Code §§ 22-5-1. et seq. and the following Legislative Rules promulgated thereunder:

- 2.3.1. 45CSR13 – *Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Temporary Permits, General Permits and Procedures for Evaluation;*

2.4. Term and Renewal

- 2.4.1. This permit supersedes and replaces previously issued Permit G35-A041. This Permit shall remain valid, continuous and in effect unless it is revised, suspended, revoked or otherwise changed under an applicable provision of 45CSR13 or any other applicable legislative rule;

2.5. Duty to Comply

- 2.5.1. The permitted facility shall be constructed and operated in accordance with the plans and specifications filed in Permit Application G35-A041, R13-2891 and any modifications, administrative updates, or amendments thereto. The Secretary may suspend or revoke a permit if the plans and specifications upon which the approval was based are not adhered to;
[45CSR§§13-5.11 and -10.3.]
- 2.5.2. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the West Virginia Code and the Clean Air Act and is grounds for enforcement action by the Secretary or USEPA;
- 2.5.3. Violations of any of the conditions contained in this permit, or incorporated herein by reference, may subject the permittee to civil and/or criminal penalties for each violation and further action or remedies as provided by West Virginia Code 22-5-6 and 22-5-7;
- 2.5.4. Approval of this permit does not relieve the permittee herein of the responsibility to apply for and obtain all other permits, licenses, and/or approvals from other agencies; i.e., local, state, and federal, which may have jurisdiction over the construction and/or operation of the source(s) and/or facility herein permitted.

2.6. Duty to Provide Information

The permittee shall furnish to the Secretary within a reasonable time any information the Secretary may request in writing to determine whether cause exists for administratively updating, modifying, revoking, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Secretary copies of records to be kept by the permittee. For information claimed to be confidential, the permittee shall furnish such records to the Secretary along with a claim of confidentiality in accordance with 45CSR31. If confidential information is to be sent to USEPA, the permittee shall directly provide such information to USEPA along with a claim of confidentiality in accordance with 40 C.F.R. Part 2.

2.7. Duty to Supplement and Correct Information

Upon becoming aware of a failure to submit any relevant facts or a submittal of incorrect information in any permit application, the permittee shall promptly submit to the Secretary such supplemental facts or corrected information.

2.8. Administrative Update

The permittee may request an administrative update to this permit as defined in and according to the procedures specified in 45CSR13.

[45CSR§13-4.]

2.9. Permit Modification

The permittee may request a minor modification to this permit as defined in and according to the procedures specified in 45CSR13.

[45CSR§13-5.4.]

2.10 Major Permit Modification

The permittee may request a major modification as defined in and according to the procedures specified in 45CSR14 or 45CSR19, as appropriate.

[45CSR§13-5.1]

2.11. Inspection and Entry

The permittee shall allow any authorized representative of the Secretary, upon the presentation of credentials and other documents as may be required by law, to perform the following:

- a. At all reasonable times (including all times in which the facility is in operation) enter upon the permittee's premises where a source is located or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- c. Inspect at reasonable times (including all times in which the facility is in operation) any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit;
- d. Sample or monitor at reasonable times substances or parameters to determine compliance with the permit or applicable requirements or ascertain the amounts and types of air pollutants discharged.

2.12. Emergency

- 2.12.1. An "emergency" means any situation arising from sudden and reasonable unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by

improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

- 2.12.2. Effect of any emergency. An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions of Section 2.12.3 are met.
- 2.12.3. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:
 - a. An emergency occurred and that the permittee can identify the cause(s) of the emergency;
 - b. The permitted facility was at the time being properly operated;
 - c. During the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and
 - d. The permittee submitted notice of the emergency to the Secretary within one (1) working day of the time when emission limitations were exceeded due to the emergency and made a request for variance, and as applicable rules provide. This notice must contain a detailed description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.
- 2.12.4. In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof.
- 2.12.5. The provisions of this section are in addition to any emergency or upset provision contained in any applicable requirement.

2.13. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for a permittee in an enforcement action that it should have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. However, nothing in this paragraph shall be construed as precluding consideration of a need to halt or reduce activity as a mitigating factor in determining penalties for noncompliance if the health, safety, or environmental impacts of halting or reducing operations would be more serious than the impacts of continued operations.

2.14. Suspension of Activities

In the event the permittee should deem it necessary to suspend, for a period in excess of sixty (60) consecutive calendar days, the operations authorized by this permit, the permittee shall notify the Secretary, in writing, within two (2) calendar weeks of the passing of the sixtieth (60) day of the suspension period.

2.15. Property Rights

This permit does not convey any property rights of any sort or any exclusive privilege.

2.16. Severability

The provisions of this permit are severable and should any provision(s) be declared by a court of competent jurisdiction to be invalid or unenforceable, all other provisions shall remain in full force and effect.

2.17. Transferability

This permit is transferable in accordance with the requirements outlined in Section 10.1 of 45CSR13. [45CSR§13-10.1.]

2.18. Notification Requirements

The permittee shall notify the Secretary, in writing, no later than thirty (30) calendar days after the actual startup of the operations authorized under this permit.

2.19. Credible Evidence

Nothing in this permit shall alter or affect the ability of any person to establish compliance with, or a violation of, any applicable requirement through the use of credible evidence to the extent authorized by law. Nothing in this permit shall be construed to waive any defense otherwise available to the permittee including, but not limited to, any challenge to the credible evidence rule in the context of any future proceeding.

3.0. Facility-Wide Requirements

3.1. Limitations and Standards

- 3.1.1. **Minor Source of Hazardous Air Pollutants (HAP).** HAP emissions from the facility shall be less than 10 tons/year of any single HAP and 25 tons/year of any combination of HAPs. Compliance with this Section shall ensure that the facility is a minor HAP source.
- 3.1.2. **Open burning.** The open burning of refuse by any person, firm, corporation, association or public agency is prohibited except as noted in 45CSR§6-3.1.
[45CSR§6-3.1.]
- 3.1.3. **Open burning exemptions.** The exemptions listed in 45CSR§6-3.1 are subject to the following stipulation: Upon notification by the Secretary, no person shall cause, suffer, allow or permit any form of open burning during existing or predicted periods of atmospheric stagnation. Notification shall be made by such means as the Secretary may deem necessary and feasible.
[45CSR§6-3.2.]
- 3.1.4. **Asbestos.** The permittee is responsible for thoroughly inspecting the facility, or part of the facility, prior to commencement of demolition or renovation for the presence of asbestos and complying with 40 C.F.R. § 61.145, 40 C.F.R. § 61.148, and 40 C.F.R. § 61.150. The permittee, owner, or operator must notify the Secretary at least ten (10) working days prior to the commencement of any asbestos removal on the forms prescribed by the Secretary if the permittee is subject to the notification requirements of 40 C.F.R. § 61.145(b)(3)(i). The USEPA, the Division of Waste Management, and the Bureau for Public Health - Environmental Health require a copy of this notice to be sent to them.
[40CFR§61.145(b) and 45CSR§34]
- 3.1.5. **Odor.** No person shall cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor at any location occupied by the public.
[45CSR§4-3.1] [State Enforceable Only]
- 3.1.6. **Permanent shutdown.** A source which has not operated at least 500 hours in one 12-month period within the previous five (5) year time period may be considered permanently shutdown, unless such source can provide to the Secretary, with reasonable specificity, information to the contrary. All permits may be modified or revoked and/or reapplication or application for new permits may be required for any source determined to be permanently shutdown.
[45CSR§13-10.5.]
- 3.1.7. **Standby plan for reducing emissions.** When requested by the Secretary, the permittee shall prepare standby plans for reducing the emissions of air pollutants in accordance with the objectives set forth in Tables I, II, and III of 45CSR11.
[45CSR§11-5.2.]

3.2. Monitoring Requirements

- 3.2.1. **Record of Monitoring.** The permittee shall keep records of monitoring information that include the following:
- a. The date, place as defined in this permit, and time of sampling or measurements;
 - b. The date(s) analyses were performed;
 - c. The company or entity that performed the analyses;
 - d. The analytical techniques or methods used;
 - e. The results of the analyses; and
 - f. The operating conditions existing at the time of sampling or measurement.

3.3. Testing Requirements

- 3.3.1. **Stack testing.** As per provisions set forth in this permit or as otherwise required by the Secretary, in accordance with the West Virginia Code, underlying regulations, permits and orders, the permittee shall conduct test(s) to determine compliance with the emission limitations set forth in this permit and/or established or set forth in underlying documents. The Secretary, or his duly authorized representative, may at his option witness or conduct such test(s). Should the Secretary exercise his option to conduct such test(s), the operator shall provide all necessary sampling connections and sampling ports to be located in such manner as the Secretary may require, power for test equipment and the required safety equipment, such as scaffolding, railings and ladders, to comply with generally accepted good safety practices. Such tests shall be conducted in accordance with the methods and procedures set forth in this permit or as otherwise approved or specified by the Secretary in accordance with the following:
- a. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with 40 C.F.R. Parts 60, 61, and 63 in accordance with the Secretary's delegated authority and any established equivalency determination methods which are applicable. If a testing method is specified or approved which effectively replaces a test method specified in the permit, the permit may be revised in accordance with 45CSR§13-4. or 45CSR§13-5.4 as applicable.
 - b. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with applicable requirements which do not involve federal delegation. In specifying or approving such alternative testing to the test methods, the Secretary, to the extent possible, shall utilize the same equivalency criteria as would be used in approving such changes under Section 3.3.1.a. of this permit. If a testing method is specified or approved which effectively replaces a test method specified in the permit, the permit may be revised in accordance with 45CSR§13-4. or 45CSR§13-5.4 as applicable.
 - c. All periodic tests to determine mass emission limits from or air pollutant concentrations in discharge stacks and such other tests as specified in this permit shall be conducted in accordance with an approved test protocol. Unless previously approved, such protocols shall be submitted to the Secretary in writing at least thirty (30) days prior to any testing and shall contain the information set forth by the Secretary. In addition, the permittee shall notify the Secretary at least fifteen (15) days prior to any testing so the Secretary may have the opportunity to observe such tests. This notification shall include the actual date and time during which the test will be conducted and, if appropriate, verification that the tests will fully conform to a referenced protocol previously approved by the Secretary.

- d. The permittee shall submit a report of the results of the stack test within sixty (60) days of completion of the test. The test report shall provide the information necessary to document the objectives of the test and to determine whether proper procedures were used to accomplish these objectives. The report shall include the following: the certification described in paragraph 3.5.1.; a statement of compliance status, also signed by a responsible official; and, a summary of conditions which form the basis for the compliance status evaluation. The summary of conditions shall include the following:
 1. The permit or rule evaluated, with the citation number and language;
 2. The result of the test for each permit or rule condition; and,
 3. A statement of compliance or noncompliance with each permit or rule condition.

[WV Code § 22-5-4(a)(14-15) and 45CSR13]

3.4. Recordkeeping Requirements

- 3.4.1. **Retention of records.** The permittee shall maintain records of all information (including monitoring data, support information, reports, and notifications) required by this permit recorded in a form suitable and readily available for expeditious inspection and review. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation. The files shall be maintained for at least five (5) years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two (2) years of data shall be maintained on site. The remaining three (3) years of data may be maintained off site, but must remain accessible within a reasonable time. Where appropriate, the permittee may maintain records electronically (on a computer, on computer floppy disks, CDs, DVDs, or magnetic tape disks), on microfilm, or on microfiche.
- 3.4.2. **Odors.** For the purposes of 45CSR4, the permittee shall maintain a record of all odor complaints received, any investigation performed in response to such a complaint, and any responsive action(s) taken.

[45CSR§4. *State Enforceable Only.*]

3.5. Reporting Requirements

- 3.5.1. **Responsible official.** Any application form, report, or compliance certification required by this permit to be submitted to the DAQ and/or USEPA shall contain a certification by the responsible official that states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- 3.5.2. **Confidential information.** A permittee may request confidential treatment for the submission of reporting required by this permit pursuant to the limitations and procedures of W.Va. Code § 22-5-10 and 45CSR31.
- 3.5.3. **Correspondence.** All notices, requests, demands, submissions and other communications required or permitted to be made to the Secretary of DEP and/or USEPA shall be made in writing and shall be deemed to have been duly given when delivered by hand, or mailed first class with postage prepaid to the address(es) set forth below or to such other person or address as the Secretary of the Department of Environmental Protection may designate:

If to the DAQ:

Director
WVDEP
Division of Air Quality
601 57th Street
Charleston, WV 25304-2345

If to the US EPA:

Associate Director
Office of Enforcement and Permits Review
(3AP12)
U.S. Environmental Protection Agency
Region III
1650 Arch Street
Philadelphia, PA 19103-2029

3.5.4. Operating Fee

3.5.4.1. In accordance with 45CSR22 – Air Quality Management Fee Program, the permittee shall not operate nor cause to operate the permitted facility or other associated facilities on the same or contiguous sites comprising the plant without first obtaining and having in current effect a Certificate to Operate (CTO). Such Certificate to Operate (CTO) shall be renewed annually, shall be maintained on the premises for which the certificate has been issued, and shall be made immediately available for inspection by the Secretary or his/her duly authorized representative.

3.5.5. **Emission inventory.** At such time(s) as the Secretary may designate, the permittee herein shall prepare and submit an emission inventory for the previous year, addressing the emissions from the facility and/or process(es) authorized herein, in accordance with the emission inventory submittal requirements of the Division of Air Quality. After the initial submittal, the Secretary may, based upon the type and quantity of the pollutants emitted, establish a frequency other than on an annual basis.

4.0. Source-Specific Requirements

4.1. Limitations and Standards

- 4.1.1. **Record of Monitoring.** The permittee shall keep records of monitoring information that include the following:
- The date, place as defined in this permit, and time of sampling or measurements;
 - The date(s) analyses were performed;
 - The company or entity that performed the analyses;
 - The analytical techniques or methods used;
 - The results of the analyses; and
 - The operating conditions existing at the time of sampling or measurement.
- 4.1.2. **Minor Source of Hazardous Air Pollutants (HAP).** HAP emissions from the facility shall be less than 10 tons/year of any single HAP and 25 tons/year of any combination of HAPs. Compliance with this Section shall ensure that the facility is a minor HAP source.
- 4.1.3. **Operation and Maintenance of Air Pollution Control Equipment.** The permittee shall, to the extent practicable, install, maintain, and operate the catalytic reduction devices (1C), BTEX Condensers (2C) and Fuel-borne catalyst (3C) and associated monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions, or comply with any more stringent limits set forth in this permit or as set forth by any State rule, Federal regulation, or alternative control plan approved by the Secretary.
[45CSR§13-5.11.]
- 4.1.4. **Record of Malfunctions of Air Pollution Control Equipment.** For the catalytic reduction devices (1C), BTEX Condensers (2C) and Fuel-borne catalyst (3C), the permittee shall maintain records of the occurrence and duration of any malfunction or operational shutdown of the air pollution control equipment during which excess emissions occur. For each such case, the following information shall be recorded:
- The equipment involved.
 - Steps taken to minimize emissions during the event.
 - The duration of the event.
 - The estimated increase in emissions during the event.
- For each such case associated with an equipment malfunction, the additional information shall also be recorded:
- The cause of the malfunction.
 - Steps taken to correct the malfunction.
 - Any changes or modifications to equipment or procedures that would help prevent future recurrences of the malfunction.

5.0 Source-Specific Requirements (Engines, CE-1 – CE-9)

5.1. Limitations and Standards

- 5.1.1. The quantity of natural gas that shall be consumed in each of the 1,340 hp natural gas fired reciprocating engines, Caterpillar G3516LE (CE-1 – CE-9) shall not exceed 10,289 cubic feet per hour or 90.13×10^6 cubic feet per year.
- 5.1.2. Maximum emissions from each of the 1,340 hp natural gas fired reciprocating engines, Caterpillar G3516LE (CE-1 – CE-9) shall not exceed the following limits:

Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/year)
Nitrogen Oxides	1.48	6.49
Carbon Monoxide	0.12	0.54
Volatile Organic Compounds	0.11	0.48
Formaldehyde	0.02	0.07

5.1.3. Requirements for Use of Catalytic Reduction Devices

- a. Natural gas compressor engines equipped with selective catalytic reduction (SCR) air pollution control devices shall be fitted with a closed-loop automatic feedback controller to ensure emissions of regulated pollutants do not exceed the potential to emit for any engine/SCR combination under varying load. The closed-loop automatic feedback controller shall provide proper and efficient operation of the engine, ammonia injection and SCR device, monitor emission levels downstream of the catalyst element and limit ammonia slip to less than 10 ppm_v;
 - b. The automatic air/fuel ratio controller or closed-loop automatic feedback controller shall provide a warning or indication to the operator and/or be interlocked with the engine ignition system to cease engine operation in case of a masking, poisoning or overrich air/fuel ratio situation which results in performance degradation or failure of the catalyst element; and
 - c. No person shall knowingly:
 1. Remove or render inoperative any air pollution or auxiliary air pollution control device installed subject to the requirements of this permit;
 2. Install any part or component when the principal effect of the part or component is to bypass, defeat or render inoperative any air pollution control device or auxiliary air pollution control device installed subject to the requirements of this permit; or
 3. Cause or allow engine exhaust gases to bypass any catalytic reduction device.
- 5.1.4. The permittee shall ensure that the fuel borne catalyst (3C) shall be injected into the fuel stream in such a manner that it is uniformly mixed at all times the engines (CE-1 – CE-9) are operational on a consistent and continuous basis. This injection rate shall be consistent with the operating practices documented and utilized during the demonstration of a successful compliance test, which is required to be conducted in accordance with Section 5.3.2.

5.2. Monitoring Requirements

5.2.1. Catalytic Oxidizer Control Devices

- a. The permittee shall regularly inspect, properly maintain and/or replace catalytic reduction devices and auxiliary air pollution control devices to ensure functional and effective operation of the engine's physical and operational design. The permittee shall ensure proper operation, maintenance and performance of catalytic reduction devices and auxiliary air pollution control devices by:
 1. Maintaining proper operation of the automatic air/fuel ratio controller or automatic feedback controller.
 2. Following operating and maintenance recommendations of the catalyst element manufacturer (1C) and fuel borne catalyst manufacturer (3C).

5.3. Testing Requirements

- 5.3.1. The permittee shall keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engines (CE-1 – CE-9) in a manner consistent with good air pollution control practice for minimizing emissions.
- 5.3.2. The permittee must conduct an initial performance test within 180 days of permit issuance to demonstrate compliance with Section 5.1.2.
- 5.3.3. The permittee shall not conduct performance tests during periods of startup, shutdown, or malfunction.
- 5.3.4. The permittee shall conduct three separate test runs for each performance test required in 5.3.2. Each test run must be conducted within 10 percent of 100 percent peak (or the highest achievable) load and last at least 1 hour and in accordance with Section 3.3 of this permit.
- 5.3.5. The permittee shall conduct quarterly testing utilizing an approved measuring device to ensure emission compliance levels of Section 5.1.2 on the engines (CE-1 – CE-9). If two (2) consecutive quarterly tests show non-compliance, the permittee shall conduct a performance test within 90 days in accordance with Section 3.3.1.

5.4. Recordkeeping Requirements

- 5.4.1. To demonstrate compliance with Sections 5.1-5.2, the permittee shall maintain records of the amount of natural gas consumed in each engine and the hours of operation of each engine. Said records shall be maintained on site or in a readily accessible off-site location maintained by the permittee for a period of five (5) years. Said records shall be readily available to the Director of the Division of Air Quality or his/her duly authorized representative for expeditious inspection and review. Any records submitted to the agency pursuant to a requirement of this permit or upon request by the Director shall be certified by a responsible official.
- 5.4.2. To demonstrate compliance with Section 5.1.4, the permittee shall maintain records of the amount of fuel borne catalyst (3C) injected in each engine and the hours of operation of each engine on a monthly basis. Said records shall be maintained on site or in a readily accessible off-site location maintained by the permittee for a period of five (5) years. Said records shall be readily available to the Director of the Division of Air Quality or his/her duly authorized representative for expeditious inspection and review. Any records submitted to the agency pursuant to a requirement of this permit or upon request by the Director shall be certified by a responsible official.
- 5.4.3. To demonstrate compliance with Section 5.3.5, the permittee shall maintain records of the quarterly testing. Said records shall be maintained on site or in a readily accessible off-site

location maintained by the permittee for a period of five (5) years. Said records shall be readily available to the Director of the Division of Air Quality or his/her duly authorized representative for expeditious inspection and review. Any records submitted to the agency pursuant to a requirement of this permit or upon request by the Director shall be certified by a responsible official.

5.5. Reporting Requirements

- 5.5.1. Should the quarterly sampling required by Section 5.3.5 detect emission levels in excess of the hourly limits established by Section 5.1.2, the permittee shall submit a corrective action plan with a root cause analysis to the Director within 45 days. The report shall adequately detail the results of the quarterly sampling and document all operating conditions encountered during the quarterly test.

6.0. Source-Specific Hazardous Air Pollutant Requirements (Natural Gas Dehydration Units Not Subject to MACT Standards and being controlled by Recycling the Dehydration Unit Back to Flame Zone of Reboiler)

6.1. Limitations and Standards

- 6.1.1. Maximum Throughput Limitation. The maximum wet natural gas throughput to the glycol dehydration unit/still columns shall not exceed the following.

Emission Point ID	Maximum Wet Natural Gas Throughput
RSV-1	25 mmscf/day
RSV-2	25 mmscf/day
RSV-3	52 mmscf/day

- 6.1.2. Maximum Design Heat Input. The maximum design heat input for the Glycol Reboilers shall not exceed the following limits:

Emission Point ID	Maximum Design Heat Input
RBV-1	0.5 mmBtu/hr
RBV-2	0.5 mmBtu/hr
RBV-3	1.5 mmBtu/hr

- 6.1.3. The quantity of natural gas that shall be consumed in each of the 0.5 MMBtu/hr Glycol Reboilers (RBV-1, RBV-2) shall not exceed 454 cubic feet per hour or 3.98×10^6 cubic feet per year for each reboiler.
- 6.1.4. The quantity of natural gas that shall be consumed in the 1.5 MMBtu/hr Glycol Reboiler (RBV-3) shall not exceed 1,360 cubic feet per hour or 11.92×10^6 cubic feet per year for each reboiler.

- 6.1.5. Maximum emissions from each of the Glycol Reboilers (RBV-1, RBV-2) shall not exceed the following limits:

Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/year)
Nitrogen Oxides	0.05	0.20
Carbon Monoxide	0.04	0.17

- 6.1.6. Maximum emissions from each of the Glycol Regenerator Still Columns (RSV-1, RSV-2) shall not exceed the following limits:

Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/year)
Volatile Organic Compounds	0.01	0.03

- 6.1.7. Maximum emissions from the Glycol Reboiler (RBV-3) shall not exceed the following limits:

Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/year)
Nitrogen Oxides	0.15	0.66
Carbon Monoxide	0.13	0.55

- 6.1.8. Maximum emissions from the Glycol Regenerator Still Column (RSV-3) shall not exceed the following limits:

Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/year)
Volatile Organic Compounds	0.01	0.03

- 6.1.9. For purposes of determining potential HAP emissions at transmission and storage facilities to comply with the requirements in Section 4.1.2, the methods specified in 40 CFR 63, Subpart HHH shall be used. For purposes of determining potential HAP emissions at production-related facilities, the methods specified in 40 CFR 63, Subpart HH (i.e. excluding compressor engines from HAP PTE) shall be used.
- 6.1.10. Each glycol dehydration unit/still column (RSV-1, RSV-2, RSV-3) shall be equipped with a fully functional BTEX Condenser (2C) at all times. The BTEX Condenser (2C) shall be operated according to manufacturer's specifications, and shall be properly maintained in a manner which prevents the unit from freezing.
- 6.1.11 Recycled reboilers subject to this section shall be designed and operated in accordance with the following:
- The vapors/overheads from the still column shall be routed through a closed vent system to the reboiler at all times when there is a potential that vapors (emissions) can be generated from the still column.

- b. The reboiler shall only be fired with vapors from the still column, and natural gas may be used as supplemental fuel.
- c. The vapors/overheads from the still column shall be introduced into the flame zone of the reboiler.

6.2. Monitoring Requirements

- 6.2.1. The permittee shall monitor the throughput of wet natural gas fed to the dehydration system on a monthly basis for the glycol dehydration units.
- 6.2.2. The permittee shall monitor the throughput of liquid gathered in storage from the condenser on a monthly basis.

6.3. Recordkeeping Requirements

- 6.3.1. The permittee shall maintain a record of the wet natural gas throughput through the glycol dehydration units to demonstrate compliance with Section 6.1.1 of this permit. Said records shall be maintained for a period of five (5) years on site or in a readily accessible off-site location maintained by the permittee. Said records shall be readily available to the Director of the Division of Air Quality or his/her duly authorized representative for expeditious inspection and review. Any records submitted to the agency pursuant to a requirement of this permit or upon request by the Director shall be certified by a responsible official.
- 6.3.2. To demonstrate compliance with Section 6.1.3 and 6.1.4 the permittee shall maintain records of the amount of natural gas consumed in the Glycol Reboilers (RBV-1, RBV-2, RBV-3). Said records shall be maintained on site or in a readily accessible off-site location maintained by the permittee for a period of five (5) years. Said records shall be readily available to the Director of the Division of Air Quality or his/her duly authorized representative for expeditious inspection and review. Any records submitted to the agency pursuant to a requirement of this permit or upon request by the Director shall be certified by a responsible official.
- 6.3.3. For the purpose of demonstrating compliance with Section 4.1.2 and 6.1.9, the permittee shall maintain a record of all potential to emit (PTE) HAP calculations for the entire affected facility. These records shall include the natural gas compressor engines and ancillary equipment.
- 6.3.4. The permittee shall maintain a record of the condensate gathered from the condenser to demonstrate compliance with Section 6.2.2 of this permit. Said records shall be maintained for a period of five (5) years on site or in a readily accessible off-site location maintained by the permittee. Said records shall be readily available to the Director of the Division of Air Quality or his/her duly authorized representative for expeditious inspection and review. Any records submitted to the agency pursuant to a requirement of this permit or upon request by the Director shall be certified by a responsible official.

7.0. Exemption (Less than 1 ton/year Benzene Exemption Subpart HH)

- 7.1.1. Any permittee who chooses to qualify for the less than 1.0 tons/yr actual average emissions of Benzene per glycol dehydration unit exemption of 40CFR63 Subpart HH shall comply with the limit in Table 1.0.

Table 1.0 Glycol Dehydration Unit

Description	Mg/yr	Tons/Yr
Benzene	< 0.9	< 1.0

- 7.1.2. To claim less than 1 ton/year of Benzene exemption as stated in Section 7.1.1 of this permit, the permittee shall adhere to the following:

- a. The actual average emissions of benzene from the individual still vent of the glycol dehydration unit to the atmosphere shall be less than 1.0 ton per year (0.9 megagram per year). Emissions shall be determined either uncontrolled, or with federally enforceable controls in place.
[§63.764(e)(1)(ii) or §63.1274(d)(2)]
- b. The permittee shall determine the actual average benzene emission using the model GRI-GLYCalc™, Version 3.0 or higher, and the procedures presented in the associated GRI-GLYCalc™ Technical Reference Manual. Inputs to the model shall be representative of actual operating conditions of the glycol dehydration unit and may be determined using the procedures documented in the Gas Research Institute (GRI) report entitled “Atmospheric Rich/Lean Method for Determining Glycol Dehydrator Emissions” (CGR-95/0368.1); **or**

The permittee shall determine an average mass rate of benzene emissions in kilograms per hour through direct measurement using the methods set forth in either 40 CFR 63.772(b)(2)(ii) or 40 CFR 63.1282(a)(2)(ii), as applicable. Annual emissions in kilograms per year shall be determined by multiplying the mass rate by the number of hours the unit is operated per year. This result shall be converted to megagrams per year. Permittees with federally enforceable controls are exempt from the requirements to conduct site-specific extended gas analysis.

[§63.772(b)(2)(i)-(ii) or §63.1282(a)(2)(i)-(ii)]

- c. All records required under Section 7 shall be maintained on site or in a readily accessible off-site location maintained by the permittee for a period of five (5) years. Said records shall be readily available to the Director of the Division of Air Quality or his/her duly authorized representative for expeditious inspection and review. Any records submitted to the agency pursuant to a requirement of this permit or upon request by the Director shall be certified by a responsible official.

CERTIFICATION OF DATA ACCURACY

I, the undersigned, hereby certify that, based on information and belief formed after reasonable inquiry, all information contained in the attached _____, representing the period beginning _____ and ending _____, and any supporting documents appended hereto, is true, accurate, and complete.

Signature¹

(please use blue ink)

Responsible Official or Authorized Representative

Date

Name & Title

(please print or type)

Name

Title

Telephone No. _____

Fax No. _____

¹ This form shall be signed by a "Responsible Official." "Responsible Official" means one of the following:

- a. For a corporation: The president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit and either:
 - (i) the facilities employ more than 250 persons or have a gross annual sales or expenditures exceeding \$25 million (in second quarter 1980 dollars), or
 - (ii) the delegation of authority to such representative is approved in advance by the Director;
- b. For a partnership or sole proprietorship: a general partner or the proprietor, respectively;
- c. For a municipality, State, Federal, or other public entity: either a principal executive officer or ranking elected official. For the purposes of this part, a principal executive officer of a Federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., a Regional Administrator of U.S. EPA); or
- d. The designated representative delegated with such authority and approved in advance by the Director.